

AMENDMENT TO THE CLAIMS

1. (Currently amended) ~~A method for creating an image model in an image identification system, the method comprising:~~

~~obtaining a raw scan of an image;~~

The method of claim 62, further comprising:

preprocessing at least a portion of the at least one image
portion of the raw scan image to obtain a monochrome
image; and

creating a wire frame image based on the monochrome image.

~~, and~~

~~locating and qualifying a plurality of distinguishing
characteristics of the wire frame image.~~

2-62. (Cancelled)

63. (New) A computer-implemented method for evaluating image quality, the method comprising:

obtaining a raw scan image;

selecting at least one image portion from the raw scan
image;

generating a collection of slope-oriented data that
corresponds to said at least one image portion of the
raw scan image; and

utilizing said collection of slope-oriented data as a basis
for determining a quality classification of said at
least one image portion.

64. (New) The method of claim 63, wherein utilizing said
collection of slope-oriented data comprises:

generating a slope representation based on at least a portion of the raw scan image; and
utilizing the slope representation to determine a quality characteristic of the raw scan image.

65. (New) The method of claim 64, further comprising:
utilizing the slope representation to determine an additional classification based on a brightness level within at least a portion of the raw scan of the image.
66. (New) The method of claim 63, further comprising at least temporarily terminating subsequent processing if the quality classification does not meet a predetermined reference threshold.
67. (New) The method of claim 63, further comprising preprocessing the at least one image portion to generate a monochrome image.
68. (New) The method of claim 67, wherein generating said collection of slope-oriented data comprises:
dividing the monochrome image into a plurality of pixel grids;
performing a contour trace through said plurality of pixel grids and recording a set of corresponding data in a raw slope data table;
utilizing said set of corresponding data to calculate a slope value for each pixel grid; and
recording said slope value in the collection of slope-oriented data.

69. (New) A computer-implemented method for determining whether to interrupt processing of an image, comprising:

- obtaining a raw scan image;
- generating a collection of slope-oriented information based on at least one portion of the raw scan image; and
- utilizing the collection of slope-oriented information to determine an image quality characteristic of said at least one portion of the raw scan image.

70. (New) The method of claim 69, wherein generating the collection of slope-oriented information comprises:

- creating a raw collection of slope-oriented information using data from a monochrome image that corresponds to the raw scan image; and
- generating a processed collection of slope-oriented information using data from the raw collection of slope-oriented information.

71. (New) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises dividing the monochrome image into an array of pixel grids.

72. (New) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises executing a contour trace of features within at least one pixel grid comprised in the monochrome image.

73. (New) The method of claim 70, wherein creating the raw collection of slope-oriented information comprises generating an entry corresponding to at least one pixel grid comprised in the monochrome image, the entry comprising a count of the changes in

the x coordinate in the pixel grid, and a count of the changes in the y coordinate in the pixel grid.

74. (New) The method of claim 73, wherein the entry corresponding to the at least one pixel grid further comprises a count of the pixels tested in the at least one pixel grid.

75. (New) The method of 74, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least one portion of the raw scan image comprises comparing the count of the pixels tested in the at least one pixel grid to a threshold pixel count.

76. (New) The method of claim 75, wherein the threshold pixel count can be tuned.

77. (New) The method of 75, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least one portion of the raw scan image comprises determining a ratio of pixel grids of the monochrome image wherein the count of the pixels is at least equal to the threshold pixel count.

78. (New) The method of claim 77, wherein determining whether to interrupt processing of an image comprises interrupting when the ratio of pixel grids wherein the count of the pixels is at least equal to the threshold pixel count, is below a threshold ratio.

79. (New) The method of claim 73, wherein generating the processed collection of slope-oriented information using data from the raw collection of slope-oriented information comprises:

calculating a hypoteneuse of the at least one pixel grid as the square root of the sum of the square of the count of the changes in the y coordinate in the pixel grid and the square of the count of the changes in the x coordinate in the pixel grid; and

calculating a slope of the at least one pixel grid as the arcsine of the quotient of the count of the changes in the y coordinate in the pixel grid divided by the hypoteneuse of the pixel grid.

80. (New) The method of claim 79, further comprising normalizing the slope of the pixel grid to a value between zero and 180 degrees.

81. (New) The method of 79, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least a portion of the raw scan image comprises comparing the slopes of a plurality of pixel grids of the monochrome image to reference slopes of corresponding pixel grids of a reference image model.

82. (New) The method of 81, wherein utilizing the collection of slope-oriented information to determine an image quality characteristic of at least a portion of the raw scan image further comprises generating a quantified level of similarity of the slopes of the plurality of pixel grids of the monochrome image to the reference slopes of the corresponding pixel grids of the reference image model.

83. (New) The method of claim 82, wherein determining whether to interrupt comprises interrupting when the quantified level of similarity is below a threshold level of similarity.

84. (New) The method of claim 83, wherein the threshold level of similarity can be tuned.

85. (New) A computer-implemented method for quantifying a quality of an image, comprising the steps of:

- obtaining a raw scan of an image;
- preprocessing the raw scan to obtain a monochrome image;
- generating a collection of slope-oriented information based on the monochrome image;
- dividing the monochrome image into an array of pixel grids;
- executing a count of pixels within at least one pixel grid of the array of pixel grids;
- comparing the count of the pixels in the at least one pixel grid to a reference; and
- determining a quantified quality classification as a relation of the count of the pixels to the reference.

86. (New) The method of 85, wherein the reference comprises a threshold pixel count.

87. (New) The method of claim 85, wherein the reference can be tuned.